

Appln. No. 10/796,615
Docket No. 14XZ120596/GEM-0147

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (currently amended) A buck/boost converter comprising:
an input and an output;
a switching cell with a switch between the input and the output;
a selector selectively configuring the switching cell into at least two configurations from among the following:
a parallel chopper configuration or
a series chopper configuration or;
an inductive-storage chopper configuration;
wherein ~~the cell is capable of using a single one of the switch~~ is configured to chop a voltage of the input in the at least two configurations.
2. (original) The converter according to claim 1 wherein the selector selectively configures the switching cell from among the three configurations.
3. (original) The converter according to claim 1 wherein the switching cell comprises an inductor and diodes.
4. (original) The converter according to claim 2 wherein the switching cell comprises an inductor and diodes.
5. (currently amended) The converter according to claim 1 wherein the switch is a transistor.

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6. (original) The converter according to claim 2 wherein the switch is a transistor.

7. (original) The converter according to claim 3 wherein the switch is a transistor.

8. (original) The converter according to claim 4 wherein the switch is a transistor.

9. (original) The converter according to claim 5 wherein the switch is a high-frequency transistor, for example, 30 kHz.

10. (previously presented) The converter according to claim 1 wherein the selector comprises a first transistor and a second transistor.

11. (previously presented) The converter according to claim 2 wherein the selector comprises a first transistor and a second transistor.

12. (previously presented) The converter according to claim 3 wherein the selector comprises a first transistor and a second transistor.

13. (previously presented) The converter according to claim 5 wherein the selector comprises a first transistor and a second transistor.

14. (previously presented) The converter according to claim 9 wherein the selector comprises a first transistor and a second transistor.

15. (original) The converter according to claim 10 wherein the selector comprises two transistors of a low-frequency, for example, 50 kHz.

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16. (previously presented) The converter according to claim 10 wherein in the parallel chopper configuration, the transistors are both continuously conducting.

17. (previously presented) The converter according to claim 11 wherein in the parallel chopper configuration, the transistors are both continuously conducting.

18. (previously presented) The converter according to claim 12 wherein in the parallel chopper configuration, the transistors are both continuously conducting.

19. (previously presented) The converter according to claim 13 wherein in the parallel chopper configuration, the transistors are both continuously conducting.

20. (previously presented) The converter according to claim 14 wherein in the parallel chopper configuration, the transistors are both continuously conducting.

21. (previously presented) The converter according to claim 15 wherein in the parallel chopper configuration, the transistors are both continuously conducting.

22. (previously presented) The converter according to claim 10 wherein in the series chopper configuration, the transistors are both continuously non-conducting.

23. (previously presented) The converter according to claim 11 wherein in the series chopper configuration, the transistors are both continuously non-conducting.

24. (previously presented) The converter according to claim 12 wherein in the series chopper configuration, the transistors are both continuously non-conducting.

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25. (previously presented) The converter according to claim 13 wherein in the series chopper configuration, the transistors are both continuously non-conducting.

26. (previously presented) The converter according to claim 14 wherein in the series chopper configuration, the transistors are both continuously non-conducting.

27. (previously presented) The converter according to claim 15 wherein in the series chopper configuration, the transistors are both continuously non-conducting.

28. (previously presented) The converter according to claim 10 wherein in the inductive-storage chopper configuration, the first transistor is conducting and the second transistor is non-conducting.

29. (previously presented) The converter according to claim 11 wherein in the inductive-storage chopper configuration, the first transistor is conducting and the second transistor is non-conducting.

30. (previously presented) The converter according to claim 12 wherein in the inductive-storage chopper configuration, the first transistor is conducting and the second transistor is non-conducting.

31. (previously presented) The converter according to claim 13 wherein in the inductive-storage chopper configuration, the first transistor is conducting and the second transistor is non-conducting.

32. (previously presented) The converter according to claim 14 wherein in the inductive-storage chopper configuration, the first transistor is conducting and the second transistor is non-conducting.

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33. (previously presented) The converter according to claim 15 wherein in the inductive-storage chopper configuration, the first transistor is conducting and the second transistor is non-conducting.

34. (original) The converter according to claim 1 comprising a capacitor for filtering the voltage at the output.

35. (original) The converter according to claim 1 comprising a diode bridge at the input.

36. (currently amended) The converter according to claim 1 wherein the ~~switching cell has a single switch between the input and the output, and the cell is capable of using the same single switch~~ is configured to chop a voltage of the input in all the configurations.

37. (previously presented) The converter according to claim 10, wherein in the inductive-storage chopper configuration, the first transistor is continuously conducting and the second transistor is continuously non-conducting.